

**Minutes from OpenPICs WP 4 meeting 10-07-2017**

Present: Longfei, Rob, Steven, Robert

**Discussion/action points**

Nr.	Description	Responsible
1.	<p><b>Al-MQW</b></p> <ul style="list-style-type: none"> <li>The design is delayed by another 2 weeks. It would be helpful to discuss with Peter (Smart) to see if their model can be used to get an initial numbers of the composition and strain.</li> <li>The Al-Q will be calibrated in both Nanolab and Smart reactors.</li> </ul>	Weiming,  Longfei
2.	<p><b>Zn diffusion tests</b></p> <ul style="list-style-type: none"> <li>5 samples have been shipped to UK for SIMS measurement.</li> <li>Get an empirical model based on more data points with MPW layerstack.</li> <li>Quick diffusion test on a SiO<sub>2</sub> mask covered sample.</li> <li>Test with mask opening. Longfei will follow up on the fabrication.</li> </ul>	Rene  Longfei
3.	<p><b>BCB planarization</b></p> <ul style="list-style-type: none"> <li>Adhesion test of metal on BCB: tape test failed due to the poor adhesion of BCB to native oxide on silicon (less than that of metal to BCB). Next test with BCB on silicon oxide will be done soon.</li> <li>Planarization test has been done on the sample from Smart. Tencor is back from supplier, needs to be set up and calibrated.</li> <li>Lithography parameters have to be re-optimized for BCB.</li> </ul>	Tjibbe
4.	<p><b>Stepper process</b></p> <ul style="list-style-type: none"> <li>Experiments ongoing to find the warm-up time required for a reproducible process with the stepper.</li> <li>Test with MaN resist: we need some initial results in July, and samples to be measured with X-SEM by an internship student in August.</li> <li>Overlay test using Scanner patterned samples is planned with Jeroen.</li> </ul>	Robert
5.	<p><b>Etching process</b></p> <ul style="list-style-type: none"> <li>The new CH<sub>4</sub>-H<sub>2</sub> recipe (optimized for ~3 degree side-wall angle in Smart's ICP) will be transferred to Nanolab after a few more fine-tuning.</li> <li>Regarding the Cl<sub>2</sub>-CH<sub>4</sub>-H<sub>2</sub> recipe, Oxford suggested to increase the H<sub>2</sub> flow and RF power. Longfei will start a new batch of wafers this week.</li> </ul>	Rui  Longfei
6.	<p><b>Planning</b></p> <ul style="list-style-type: none"> <li>Upcoming due dates for milestones: M 6.1 (end of August) Process developed for AZ and MaN based lithography. M 4.1 (end of September) BCB insulation and metal plating tested: ready for joint MPW validation</li> <li>A project review meeting (first-year) has been scheduled on 29 August. More details of the agenda will follow.</li> <li>Longfei will leave as of September 1. We are contacting people to take over this part of work. He will write documents for the hand-over.</li> </ul>	Robert Tjibbe  Weiming  Longfei

Next meeting: 13:30-15:00, 24-7-2017, Flux 10.177